Listing of Claims

- (Previously presented) A method of inhibiting angiogenesis in a human patient in need
 of such treatment comprising administering to the patient an effective amount of a
 nucleic acid expressing the human MDA-7 polypeptide in eukaryotic cells to inhibit
 angiogenesis.
- 2. (Original) The method of claim 1, wherein said patient exhibits an angiogenesis-related disease.
- 3. (Original) The method of claim 2, wherein the angiogenesis-related disease is further defined as angiogenesis-dependent cancer, a benign tumor, rheumatoid arthritis, psoriasis, an ocular angiogenic disease, Osler-Webber Syndrome, myocardial angiogenesis, plaque neovascularization, a telangiectasia, hemophiliac joint, angiofibroma, wound granulation, cat scratch disease, an ulcer, an intestinal adhesion, atherosclerosis, scleroderma, or a hypertrophic scar.
- 4. (Original) The method of claim 3, wherein angiogenesis-dependent cancer is further defined as a solid tumor, leukemia, or a tumor metastasis.
- 5. (Withdrawn) The method of claim 3, wherein the benign tumor is further defined as a hemangioma, a neuroma, a neurofibroma, a trachoma, uterine fibroid, hamartoma, teratoma, or a pyogenic granuloma.
- 6. (Withdrawn) The method of claim 3, wherein the ocular angiogenic disease is further defined as diabetic retinopathy, retinopathy of prematurity, macular degeneration, corneal graft rejection, neovascular glaucoma, retrolental fibroplasia, or Rubeosis.
- 7. (Original) The method of claim 1, wherein the nucleic acid is an expression vector.
- 8. (Original) The method of claim 7, wherein the expression vector is a viral vector.

- 9. (Presently amended) The method of claim 8, wherein between 10³ and 10¹³ pfu of the viral vector is administered at between 10³ and 10¹³ pfu.
- 10. (Original) The method of claim 8, wherein said viral vector is an adenoviral vector, a retroviral vector, a vaccinia viral vector, an adeno-associated viral vector, a polyoma viral vector, or a herpesviral vector.
- 11. (Original) The method of claim 8, wherein said viral vector is an adenoviral vector.
- 12. (Original) The method of claim 1, wherein said nucleic acid further comprises a CMV IE, dectin-1, dectin-2, human CD11c, F4/80, SM22 or MHC class II promoter.
- 13. (Original) The method of claim 1, wherein the MDA-7 polypeptide or nucleic acid is administered to the patient by direct injection into an area in need of inhibition of angiogenesis.
 - 14. (Original) The method of claim 13, wherein the patient is administered multiple injections.
 - 15. (Presently amended) The method of claim 13 [1], wherein the injection is performed locally to a disease site.
 - 16. (Presently amended) The method of claim 13 [1], wherein the injection is performed regionally to a disease site.
 - 17. (Previously presented) The method of claim 1, wherein the injection is performed distally to a disease site.
 - 18. (Original) The method of claim 1, wherein the MDA polypeptide or the nucleic acid is administered to the patient by continuous infusion.

- 19. (Original) The method of claim 1, wherein the MDA polypeptide or the nucleic acid is administered to the patient by intravenous injection.
- 20. (Original) The method of claim 1, wherein the MDA polypeptide or the nucleic acid is administered prior to or after surgery.
- 21. (Original) The method of claim 1, wherein the MDA polypeptide or the nucleic acid is administered before chemotherapy, immunotherapy, or radiotherapy.
- 22. (Original) The method of claim 1, wherein the MDA polypeptide or the nucleic acid is administered during chemotherapy, immunotherapy, or radiotherapy.
- 23. (Original) The method of claim 1, wherein the MDA polypeptide or the nucleic acid is administered after chemotherapy, immunotherapy, or radiotherapy.
- 24. (Original) The method of claim 1, wherein the patient is a human.
- 25. (Original) The method of claim 1, wherein the MDA polypeptide comprises amino acids from 1 to 206 of SEQ ID NO:2.

26.-31. (Cancelled)

- 32. (Original) The method of claim 1, wherein the MDA polypeptide comprises amino acids from 182 to 206 of SEQ ID NO:2.
- 33. (Original) The method of claim 1, wherein the MDA polypeptide comprises a secretory signal.
- 34. (Original) The method of claim 33, wherein the secretory signal is further defined as a positively charged N-terminal region in combination with a hydrophobic core.

- 35. (Original) The method of claim 1, wherein the patient is a cancer patient.
- 36. (Previously presented) A method of inhibiting endothelial cell differentiation in a human patient comprising administering to the patient an effective amount of a nucleic acid molecule expressing the human MDA-7 polypeptide.
- 37. (Previously presented) The method of claim 36, wherein a chemotherapeutic agent is administered prior to administration of the nucleic acid molecule.
- 38. (Original) The method of claim 36 wherein a chemotherapeutic agent is administered after administration of the MDA-7 polypeptide or the nucleic acid molecule.
- 39. (Previously presented) The method of claim 37 or 38, wherein the chemotherapeutic agent is a DNA damaging agent.
- 40. (Original) The method of claim 39, wherein the DNA damaging agent is gammairradiation, X-rays, UV-irradiation, microwaves, electronic emissions, adriamycin, 5fluorouracil (5FU), etoposide (VP-16), camptothecin, actinomycin-D, mitomycin C, cisplatin (CDDP), or hydrogen peroxide.
- 41. (Original) The method of claim 38, wherein the chemotherapeutic agent is a cisplatin (CDDP), carboplatin, procarbazine, mechlorethamine, cyclophosphamide, camptothecin, ifosfamide, melphalan, chlorambucil, bisulfan, nitrosurea, dactinomycin, daunorubicin, doxorubicin, bleomycin, plicomycin, mitomycin, etoposide (VP16), tamoxifen, taxol, transplatinum, 5-fluorouracil, vincristin, vinblastin, methotrexate, or analog or derivative variant thereof.
- 42. (Original) The method of claim 36, wherein the nucleic acid is comprised within a viral vector.

- 43. (Original) The method of claim 36, wherein the nucleic acid is comprised in a lipid composition.
- 68. (Withdrawn) The method of claim 32, wherein the MDA polypeptide comprises amino acids from 175 to 206 of SEQ ID NO:2.
- 69. (Withdrawn) The method of claim 68, wherein the MDA polypeptide comprises amino acids from 150 to 206 of SEQ ID NO:2.
- 70. (Withdrawn) The method of claim 69, wherein the MDA polypeptide comprises amino acids from 125 to 206 of SEQ ID NO:2.
- 71. (Withdrawn) The method of claim 70, wherein the MDA polypeptide comprises amino acids from about 100 to about 206 of SEQ ID NO:2.
- 72. (Withdrawn) The method of claim 71, wherein the MDA polypeptide comprises amino acids from 75 to 206 of SEQ ID NO:1.
- 73. (Withdrawn) The method of claim 72, wherein the MDA polypeptide comprises amino acids from 49 to 206 of SEQ ID NO:2.
- 74. (Withdrawn) The method of claim 73, wherein the MDA polypeptide comprises amino acids from 1 to 206 of SEQ ID NO:2.
- 75. (Previously presented) The method of claim 8, wherein 10¹⁰ to 10¹³ viral particles are administered.
- 76. (Previously presented) The method of claim 75, wherein 10¹¹ to 10¹² viral particles are administered.

77. (Previously presented) The method of claim 3, wherein the angiogenesis-dependent cancer is a hepatocarcinoma, retinoblastoma, astrocytoma, leukemia, neuroblastoma, mesothelioma, or non-small cell lung, small-cell lung, lung, head, neck, pancreatic, prostate, renal, bone, testicular, ovarian, cervical, gastrointestinal, lymphoma, brain, colon or bladder cancer.